AMENDMENTS TO THE CLAIMS

1. (previously presented): A method of adjusting the brightness of an image, the method comprising the steps of:

acquiring image data by an image acquisition device;

expressing a pixel value of each pixel in said image data as a set of three mutually independent components;

defining the brightness of each pixel based on said three components and;

making an adjustment to said image so that a rate (ratio) of pixels having a maximum brightness is equal to a predetermined rate (ratio).

2. (previously presented): The method as set forth in claim 1, wherein said image acquisition device is a digital camera and the adjustment to said image is a pre-photography adjustment to an exposure value using previously acquired image data.

3. (previously presented): The method as set forth in claim 1, wherein said pixel value is a value expressed in terms of a linear scale or power scale and wherein the adjustment to said image is made based on the following transformation Eq. (1):

$$\begin{pmatrix} R' \\ G' \\ B' \end{pmatrix} = k \begin{pmatrix} R \\ G \\ B \end{pmatrix} \quad \ldots \qquad (1)$$

where R', G', and B' are the three components after a transformation; R, G, and B are the three components before a transformation; and k is a constant determined according to said rate.

4. (previously presented): The method as set forth in claim 1, wherein said pixel value is a value expressed in terms of a logarithmic scale and the adjustment to said image is made based on the following transformation Eq. (2):

$$\begin{pmatrix} R' \\ G' \\ B' \end{pmatrix} = \begin{pmatrix} R \\ G \\ B \end{pmatrix} + \begin{pmatrix} k \\ k \\ k \end{pmatrix} \quad \ldots \qquad (2)$$

where R', G', and B' are the three components after a transformation; R, G, and B are the three components before a transformation; and k is a constant determined according to said rate.

5. (previously presented): The method as set forth in claim 1, wherein said image acquisition device is a data acquisition device for acquiring an image as digital data and the adjustment to said image is a data transformation process of transforming the acquired digital data.

6. (original) The method as set forth in claim 5, wherein said pixel value is a value expressed in terms of a linear scale or power scale and said data transformation process is a process based on the following transformation Eq. (1):

$$\begin{pmatrix} R' \\ G' \\ B' \end{pmatrix} = k \begin{pmatrix} R \\ G \\ B \end{pmatrix} \quad \ldots \qquad (1)$$

where R', G', and B' are the three components after a transformation; R, G, and B are the three components before a transformation; and k is a constant determined according to said rate.

7. (original): The method as set forth in claim 5, wherein said pixel value is a value expressed in terms of a logarithmic scale and said data transformation process is a process based on the following transformation Eq. (2):

$$\begin{pmatrix} R' \\ G' \\ B' \end{pmatrix} = \begin{pmatrix} R \\ G \\ B \end{pmatrix} + \begin{pmatrix} k \\ k \\ k \end{pmatrix} \quad \ldots \qquad (2)$$

where R', G', and B' are the three components after a transformation; R, G, and B are the three components before a transformation; and k is a constant determined according to said rate.

8. (original): The method as set forth in any one of claims 1 through 7, wherein said brightness is defined by the following Eq. (3):

$$L = \max(R, G, B) \qquad (3)$$

where L is the brightness of a pixel; R, G, and B are the three components; and max(x, y, z) is the maximum value among x, y, and z.

9. (previously presented): A digital camera comprising:

image pick-up means for photographing an image and acquiring image data in which a pixel value of each pixel is expressed as a set of three mutually independent components;

brightness analyzing means for computing a histogram of the brightness of said pixel defined based on said three components for said image data acquired by said image pick-up means; and

exposure control means for automatically making an adjustment to an exposure value at the time of photographing according to said histogram so that a rate (ratio) of pixels having a maximum brightness is equal to a predetermined rate (ratio).

10. (canceled)

11. (canceled)

12. (previously presented): The digital camera as set forth in claim 9 , wherein said brightness is defined by the following Eq. (3):

$$L = \max(R, G, B) \qquad (3)$$

where L is the brightness of a pixel; R, G, and B are the three components; and max(x, y, z) is the maximum value among x, y, and z.

13. (previously presented) An image processor comprising:

data acquisition means for acquiring an image as digital data in which a pixel value of each pixel is expressed as a set of three mutually independent components;

brightness analyzing means for computing a histogram of the brightness of said pixel defined based on said three components for said digital data acquired by said data acquisition means; and

data transformation means for automatically performing a data transformation process on the acquired digital data according to said histogram so that a rate (ratio) of pixels having a maximum brightness is equal to a predetermined rate (ratio).

14. (original): The image processor as set forth in claim 13, wherein said pixel value is a value expressed in terms of a linear scale or power scale and said data transformation process is process based on the following transformation Eq. (1):

$$\begin{pmatrix} R' \\ G' \\ B' \end{pmatrix} = k \begin{pmatrix} R \\ G \\ B \end{pmatrix} \ldots \qquad (1)$$

where R', G', and B' are the three components after a transformation; R, G, and B are the three components before a transformation; and k is a constant determined according to said rate.

15. (original): The image processor as set forth in claim 13, wherein said pixel value is a value expressed in terms of a logarithmic scale and said data transformation process is a process based on the following transformation Eq. (2):

$$\begin{pmatrix} R' \\ G' \\ B' \end{pmatrix} = \begin{pmatrix} R \\ G \\ B \end{pmatrix} + \begin{pmatrix} k \\ k \\ k \end{pmatrix} \quad \ldots \qquad (2)$$

where R', G', and B' are the three components after a transformation; R, G, and B are the three components before a transformation; and k is a constant determined according to said rate.

16. (original): The image processor as set forth in any one of claims 13 through 15, wherein said brightness is defined by the following Eq. (3):

$$L = \max(R, G, B) \qquad (3)$$

where L is the brightness of a pixel; R, G, and B are the three components; and max(x, y, z) is the maximum value among x, y, and z.

17. (currently amended) A method of adjusting the brightness of an image, the method comprising the steps of:

acquiring image data by an image acquisition device;

expressing a pixel value of each pixel in said image data as a ~~chrominance~~color value;

defining the brightness of each pixel based on said ~~chrominance~~color value and;

making an adjustment to said pixel value so that a rate (ratio) of pixels having a maximum brightness is equal to a predetermined rate (ratio).

18. (currently amended) A digital camera comprising:

image pick-up means for photographing an image and acquiring image data in which a pixel value of each pixel is expressed as a ~~chrominance~~color value;

brightness analyzing means for computing a histogram of the brightness of said pixel defined based on said ~~chrominance~~color value for said image data acquired by said image pick-up means; and

exposure control means for automatically making an adjustment to an exposure value at the time of photographing according to said histogram so that a rate of pixels having a maximum brightness among all pixels is equal to a predetermined rate.

19. (currently amended) An image processor comprising:

data acquisition means for acquiring an image as digital data in which a pixel value of each pixel is expressed as a ~~chrominance~~color value;

brightness analyzing means for computing a histogram of the brightness of said pixel defined based on said ~~chrominance~~color value for said digital data acquired by said data acquisition means; and

data transformation means for automatically performing a data transformation process on the acquired digital data according to said histogram so that a rate of pixels having a maximum brightness among all pixels is equal to a predetermined rate.

20. (new) The method of adjusting the brightness of an image as set forth in claim 1, wherein said adjustment is a pre-exposure adjustment to an exposure value using previously acquired image data.

21. (new) The image processor as set forth in claim 13, wherein the said data transformation process is a pre-exposure adjustment to an exposure value using previously acquired image data.

22. (new) The method of adjusting the brightness of an image as set forth in claim 17, wherein said adjustment is a pre-exposure adjustment to an exposure value using previously acquired image data.

23. (new) The image processor as set forth in claim 19, wherein said data transformation process is a pre-exposure adjustment to an exposure value using previously acquired image data.